

# Appendix A

## Existing Conditions



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The 2010 *Milwaukee by Bike City of Milwaukee Bicycle Master Plan* will guide the development of a world-class on-street and off-street bicycle transportation system for the enjoyment and use of Milwaukee's residents and visitors. With the current popularity of the City's existing bikeways, an increased interest in leading healthy lifestyles, growing concern for the environment and the need for sustainable economic development, these actions will move Milwaukee forward into its third century. In looking to the future, it is important to understand the existing conditions for cycling in the city as well as past bicycle planning efforts.

## Previous Bicycle Planning

The city of Milwaukee adopted its first formal bicycle plan in 1993. *Bicycle Milwaukee* set goals and objectives designed to increase the safety and ease of cycling in the city. The major recommendations of *Bicycle Milwaukee* have been achieved in the years since that plan was adopted, including:

- Hiring a full-time bicycle and pedestrian coordinator
- Adding bicycle parking requirements to the zoning code
- Producing studies on bike parking and off-street bicycle facilities within the city
- Assisting with Bike to Work encouragement events
- Adding over 50 miles of bicycle lanes and 65 miles of bicycle routes

The bicycle lanes and routes that currently exist in Milwaukee place 45% of the city's area is within ¼ mile of an on-street bikeway.

The city's efforts to promote cycling and increase its accessibility have paid off, particularly in recent years. According to the U.S. Census Bureau's American Community Survey, Milwaukee's bicycle commuting mode share has grown almost 300% in the last 5 years with a 43% increase in 2008 alone. At the same time, it has become safer to ride a bike in the city: the crash rate has decreased 75% according to city data. The steady annual increase in cycling for transportation and the corresponding decrease in crashes began soon after the city began a concerted effort to paint bike lanes. In the many years prior to those new bike lanes, the Census data showed little or no increase in cycling and a stagnant crash rate.

While much has been accomplished since the Bicycle

Milwaukee Plan was adopted, more remains to be done. Milwaukee's bicycle mode share is above the national average, but lags behind the nearby cities of Madison and Minneapolis. The bikeway network has expanded greatly, but some areas of the city still lack easy access to on-street bicycle facilities. Over 100 miles of bike lanes and routes have been added to city streets, but the city lacks newer, innovative facilities such as bicycle boulevards, raised bicycle lanes, and shared lane markings. This plan builds on the successes of the past two decades and makes specific recommendations for facilities, policies, programs, implementation, and branding. These recommendations can result in a city that is more welcoming and accessible to cyclists of all levels and abilities.

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The city of Milwaukee is designated by the League of American Bicyclists as a "Bronze Level Bicycle Friendly Community." In 1993 the city of Milwaukee adopted its first formal bicycle plan, *Bicycle Milwaukee*, which stated that "the city of Milwaukee is serious about the bicycle as a means of transportation." The plan introduced goals and objectives to make Milwaukee a safer and easier place to bike through better bicycle infrastructure, policies and programs that would encourage cycling in the city. Most of the major recommendations of *Bicycle Milwaukee* have been achieved:

- Appointment of a full-time bicycle and pedestrian coordinator
- Addition of 51 miles of bike lanes to city streets
- Signage of 65 miles of bike routes throughout the city
- Addition of 12 miles of off-street trails
- Organization of numerous education and encouragement events, including Bike to Work week
- Requirement of bicycle parking in the zoning code
- Addition of bike racks on all Milwaukee County Transit System buses
- Establishment of a standing task force that discusses bicycle and pedestrian issues
- Completion of a detailed bicycle parking inventory and plan
- Completion of a major study of off-street bicycle facilities

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These facilities and policies have led Milwaukee's bicycle mode share to grow from 0.47% in 2006 to 1.16% in 2009, well above the national average of 0.50%. According to the 2008 American Community Survey, biking to work in Milwaukee increased greatly over the past few years, rising 43% between 2007 and 2008 alone. The increase in the number of bicycle commuters occurred soon after the city striped 35 miles of new bike lanes in 2005, lending local evidence to the "build it and they will come" philosophy that has been observed in other American cities. It should be noted that this data only counts travel to work data, which represents about 20% of all trips

While adding bike lanes has increased cycling in Milwaukee, many people in Milwaukee report feeling uncomfortable or unsafe in bike lanes and prefer to ride away from busy arterials roads. This is particularly true when taking into account children and less experienced cyclists who may not be comfortable riding in traffic.

## Existing Plans

Beginning with the 1993 Milwaukee Bicycle Plan, Bicycle Milwaukee, the city has steadily expanded the number of planning documents that specifically relate to bicycling. These documents guided the development of this plan:

- Milwaukee Bicycle Plan, 1993
- Milwaukee Bike Lane Design Guide, 2002
- Milwaukee by Bike Publicity Plan, 2003
- Off-Street Bikeway Study: Milwaukee's Best Opportunities for Trail Expansion, 2006
- Milwaukee Bicycle Parking Project Report, 2007

Each of these documents is included on the CD accompanying this plan.

## Bikeways Facilities Inventory

When people think of bicycle planning, bike lanes are often the first thing that comes to mind. Indeed, bicycle facilities and other infrastructure including off-street paths, bicycle parking racks and bike routes are the most visible, and often most expensive portion of a bicycle plan and network. This section discusses current bicycle facilities in the city of Milwaukee. The existing on-street facilities are displayed in Map 1 of the plan. Approximately 45% of the city's area is within ¼ mile of an on-street bikeway as displayed in Map 2 of the plan.



*Bicyclists using the bike lane on 6th Street*



*The Oak Leaf Trail offers shared use paths and on-street routes throughout Milwaukee*

It should be noted that the largest and one of the best bicycling facilities in Milwaukee is not marked for bicycles at all: the neighborhood street network. The majority of Milwaukee streets create a well-connected grid pattern throughout the city, and the majority of these streets are low-traffic, low-speed neighborhood streets that provide a safe, robust network for cyclists of most ages and abilities. These streets form an excellent cycling network, but need to be supplemented with bicycle-specific facilities (including bike lanes on busier streets and off-street paths) to create a fully connected network which will allow users to access all destinations safely and efficiently.



## Bike Lanes

The city has approximately 51 miles of roadway striped with bike lanes, with 137 additional miles planned or proposed. Bicycle lanes are primarily installed on roads that have higher traffic volumes and have existing space within the right-of-way (ROW). Under current law, a bicycle lane shall be added on all repaved or reconstructed arterial roads that have room for a lane after a normal vehicle traffic lane (11 to 12 feet wide) and a normal parking lane (eight feet wide) are designated.

Conflicts often arise with bike lanes due to right turning traffic or when bike lanes end and it is unclear to cyclists where they should position themselves to proceed through an intersection. The city should undertake a bike lane network spot improvement study with design and construction funds for recommended improvements at the areas in greatest need of improvement.

## Signed Bike Routes

Bicycle routes are streets or paths that have signage indicating they are a bicycle route. These routes are generally lower traffic streets that do not require a full bike lane or busier streets that connect key destinations but do not have room for a separate bike lane. Signing streets as bicycle routes assists cyclists in finding routes through the city, as well as alerts motorists that they may encounter higher than average amounts of bicycle traffic on that street.

Currently, 65 miles of signed bike routes exist in the city, with another ten miles of routes proposed. The current network of bike routes is lacking in both wayfinding bike route signs and the improved bicycle route network signage that meets state and federal standards.

## Shared use Paths

A number of shared use off-street paths exist in Milwaukee. These paths are used by cyclists, pedestrians, in-line skaters and other non-motorized users. The paths are extremely popular as they completely separate users from motor vehicle traffic except for occasional street crossings.

The longest shared use path in the area is the Oak Leaf Trail (OLT), owned and managed by Milwaukee County Parks. The trail is a system of over 100 miles of off-street paths, parkway drives and municipal streets through and around Milwaukee County. The trail ties together parks throughout the county, and connects trail systems in surrounding counties to the Milwaukee bicycle

network. Many off-street sections of the Oak Leaf Trail are of substandard width, either due to limited right of way or having been constructed before current standards existed.

The Hank Aaron State Trail (HAST) is owned and maintained by the Wisconsin Department of Natural Resources. The trail provides a continuous connection between Miller Park Stadium and the Lake Michigan lakefront. A proposed 5.5-mile addition will extend the trail west from Miller Park to the Milwaukee County line where it will connect to the Oak Leaf Trail.

The city of Milwaukee now has two trails of its own: the Beerline Trail and the Kinnickinnic River Trail. These two trails serve as the beginning of a City Trails Program that will expand as new trails in existing off-street corridors within the city are developed. The construction and maintenance of these trails will be funded by the recommended City Bicycle Program Budget.

## Bicycle Parking

For bicyclists to run errands or bike to work, secure bicycle parking must be available. Bicycle parking and storage options range from simple sidewalk mounted inverted U-racks to automatic underground bicycle parking elevators. Milwaukee currently has approximately 2,000 Class III bicycle racks and 20 Class I bicycle lockers, or about one rack for every 300 people. These facilities are distributed throughout the city, although they are primarily concentrated downtown, in neighborhood business districts and in busy bicycle corridors.



*The Department of Public Works has installed numerous bike racks around the city*

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## Mountain Biking and BMX

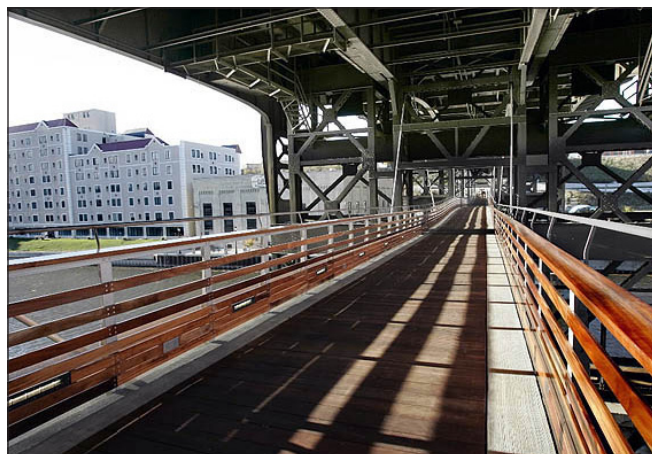
The city of Milwaukee does not have any designated mountain bike trails, BMX tracks or pump tracks. With no official places to ride, these popular sports have people creating their own trails wherever they can. This results in illegal, poorly designed and unsustainable trails. This plan recommends the city of Milwaukee work with the local MTB and BMX community to design, build and maintain legal and sustainable trails. This local community of riders has extensive experience and training, and a long history of using volunteers to design, build and maintain sustainable MTB trails, BMX tracks and pump tracks in surrounding communities.

## Opportunities for Crossing Major Barriers

At public meetings for this plan, Milwaukee citizens identified numerous barriers to cycling in Milwaukee. The majority of these barriers are interstate highways, rivers and rail corridors that can make bicycle travel difficult. Other barriers identified were pinch points under bridges and high traffic arterials. An example of such a barrier is the prohibition of bicyclists on the Hoan Bridge, which is bookended by the two busiest trails in Milwaukee. Providing bicycle accommodations on the Hoan would eliminate one of the most prominent barriers to cycling in Milwaukee.

## Transit Connections

Easy connections to transit are a simple and relatively low-cost way to expand the range of transit users and cyclists. By taking their bikes on trains and buses, cyclists can more easily reach destinations that they



*The Marsupial Bridge provides a key link across the Milwaukee River underneath the Holton Street Bridge*

could not easily reach using just one of the forms of transportation.

The bike/transit connection received a significant boost in Milwaukee in 2009 when the Milwaukee County Transit System (MCTS) implemented bike racks on buses. Through the efforts of the Bicycle Federation of Wisconsin (Bike Fed) and other local advocates, the Milwaukee County Board of Supervisors approved funding to equip all MCTS buses with front-mounted bicycle racks. These racks hold up to two bicycles that are easily loaded and unloaded by users. All MCTS buses are now equipped with bicycle racks.

Badger Bus provides daily service between Milwaukee and Madison and recently began allowing unboxed bicycles in the cargo section of the bus for a \$10.00 fee.

Amtrak provides regular train service to between Milwaukee and Chicago on the Hiawatha Line and Milwaukee and Minneapolis/St. Paul on the Empire Builder Line. Some Amtrak trains accept bicycles in their passenger cars. For those that do not, Amtrak sells large, easy to load boxes for transporting bicycles in its baggage cars. Amtrak should begin allowing bicycles unboxed on all of its trains as well to further improve intermodal connections.

## Programs Inventory

Numerous programs in Milwaukee seek to increase bicycling rates while also making bicycling safer. These programs can be broken down into encouragement efforts, education efforts and enforcement efforts.



*Bike racks were added to all Milwaukee County Transit System buses in 2009*



## Encouragement Efforts

### *Bike to Work Week*

Bike to Work Week is held in communities across the country, typically in May or June of each year. The purpose of Bike to Work Week is to educate communities on the personal, local and global benefits of commuting to work by bike. Milwaukee's annual Bike to Work Week kicks off with a Bike to Work with the Mayor ride to City Hall. Events throughout the week include free snacks and coffee at commuter stations throughout the city, free bicycle tune-ups for commuters, Bike Trivia Night and a bike ride to a Brewers game. The week often concludes with a Bike-In Movie. This program is primarily organized by the Bike Fed and supported in part by the City.

### *Bicycle Federation of Wisconsin Encouragement Events*

Throughout the year, the Bike Fed hosts various bicycle encouragement events around the city to promote cycling and draw in new participants. Past events have included the annual Love Your Bike Party, the Sew to be Seen Party, the summertime Bike-In Movie Series, and other seasonal gatherings.

### *City-Owned Bikes*

Three city-owned bikes are available to city employees for work-related use. These bikes may be reserved ahead of time and then checked out for work-related travel.

### *Rideshare*

WisDOT operates RideShare, a program primarily designed to match commuters with carpools in their area. However, RideShare participants who commute by bike can choose to be matched with other bike commuters. The program allows participants to rate their bicycle commuting experience level, and the level of commuters they would like to be matched with. The program then matches participants with other bicycle commuters and includes maps of bicycle routes and trails in the area.

<http://www.dot.wisconsin.gov/travel/commuter/rs-index.htm>

## Education Efforts

The City of Milwaukee, through Milwaukee Public Schools and the Bike Fed, offers education opportunities for cyclists. Programs are targeted at educating cyclists in how to properly ride with traffic, the rules of the road, and ways to increase their safety. Additional



*Cyclists gather for free Alterra Coffee at Zeidler Park during Bike to Work Day*



*Bike-in Movies are regularly held at the Marsupial Bridge*

programs focus on educating motorists on the rights and responsibilities of cyclists and pedestrians, as well as motorist responsibilities toward these other users of the roadway. While the city has done a reasonable job funding engineering improvements for cyclists, very few resources are put toward education, encouragement and enforcement. All of the E's (education, enforcement, encouragement, enforcement and education) need to be funded to make cycling in Milwaukee attractive, safe and convenient.

### *Streetshare*

The StreetShare program was funded with startup grants provided by the National Highway Transportation Safety Administration and the Wisconsin Department of Transportation's Bureau of Transportation Safety. The program encourages pedestrian safety through motorist awareness and initiatives

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encouraging drivers to stop for pedestrians and drive the speed limit. This program is run by the City of Milwaukee.

<http://www.streetshare.org/>

## *Safe Routes to Schools – Milwaukee Public Schools*

The Bike Fed has an ongoing program through Milwaukee Public Schools and a grant from the Department of Transportation to teach elementary students to bike and walk safely. While the program specifically focuses on trips to and from school, the skills students learn are used during any bicycle or walking trip they make. Since 2004, over 4,500 Milwaukee Public Schools students have successfully completed this program. Among these students, there is a 30% increase in bike safety knowledge. After completion of the program, approximately two-thirds of students surveyed responded that biking or walking was their favorite form of transportation.

### *Bicycle Safety Education Efforts*

The city of Milwaukee hosts a safe biking website with information on how to properly fit helmets, safe lane positioning for cyclists, and hand signals to indicate that a cyclist is stopping or turning.

<http://www.city.milwaukee.gov/SafeBiking3729.htm>

Proper lane positioning as well as other safety issues for cyclists to be aware of are also listed on the city's website on bike lanes and routes.

<http://www.city.milwaukee.gov/router.asp?docid=14143>

Using grant funding, the city has printed approximately 30,000 bicycle maps every year in partnership with the Milwaukee County Parks Department. A portion of this map depicts safe rider lane positioning, as well as diagrams from the StreetShare program depicting when motorists should yield to pedestrians. There is no longer any grant funding left to print future city bicycle maps.

The Bicycle and Pedestrian Coordinator teaches Road 101 classes. Road 101 was developed by the League of American Bicyclists and teaches the basics of safe and confident city cycling to adults.

### *Enforcement Efforts*

For cyclists to feel safe on roadways there needs to be adequate enforcement of laws for both motorists and cyclists. Many cyclists do not follow the same laws they insist motor vehicles follow. While motor vehicle speeding and close passing create unsafe conditions



*Children learning to ride safely in a Safe Routes to School Bike Camp*

for cyclists, cyclists often create unsafe conditions by running stop signs and lights and riding against traffic. To make roadways safer, it is important that the police enforce traffic laws for both motorists and cyclists.

### *Targeted Bicycle Enforcement*

The Milwaukee Police Department receives \$4,000 annually for targeted bicycle enforcement through WisDOT Bureau of Transportation Safety grants. These grants pay police officers who volunteer to work overtime for bicycle law enforcement in areas of high bicycle traffic.

### *Crash Monitoring*

TraCs technology and Milwaukee Compass can be used to identify hot zones for bicycle crashes. Currently, data is being collected and this can be queried at any time for analysis of crashes. As part of the Milwaukee Bicycle Plan update, a detailed bicycle crash analysis was conducted by Alta Planning + Design, the results of which will focus attention on particularly dangerous intersections or other areas. This analysis is presented in Appendix H.

### *Bicycle Police Officers*

Milwaukee has approximately 60 bicycle police officers. Each officer in the bike unit receives 32 hours of specialized training and a bicycle. Additionally, at least ten police officers are specially trained for bicycle safety enforcement. Although traditionally thought of primarily as a tool for community policing, the Milwaukee Police Bicycle Unit is very effective at other types of enforcement, such as reactive and proactive



policing, surveillance, night operations and traffic enforcement. Bicycle officers decrease response times and are able to patrol areas inaccessible to cruisers, including the city's growing off-street bicycle network.

## Annual Funding for Bike Facilities, Education, and Programs

Consistent funding is critical for developing new bicycle facilities as well as maintaining current facilities. The city of Milwaukee does not currently have a dedicated budget to fund bicycle facilities, maintenance or programs. Milwaukee has traditionally funded bicycle infrastructure and planning using State and Federal transportation grants that typically require a local match of 20%. Once facilities are constructed, they are maintained as part of the city's routine street maintenance. Although this system effectively keeps bicycle funding off the budget chopping block, this plan recommends that the city create an annual bicycle program budget. This budget should be used to match federal grants, construct and maintain bicycle facilities, fund education and encouragement programs, and pay dedicated bicycle staff and interns.